

Quarterly Report March 2023

HIGHLIGHTS

- The 22 waste-diluted intersections reported to date within the mineable cut-off grade (MCOG) zones of the C1 & C2 antimony/gold (Sb/Au) vein systems at the 100%-owned Nagambie Mine average **16.3 g/t gold equivalent (AuEq), comprising 6.1% Sb plus 4.8 g/t Au.**
- The MCOG adopted by Nagambie of 3.0 g/t AuEq (the same as for the Costerfield Mine) is less than the average mineable gold grade to date of 4.8 g/t Au. That is, Nagambie considers that Au revenue from the proposed mine could cover all mine operating costs and that the cost of producing Sb concentrates (for shipment to overseas Sb refineries) could be negative.
- At around 6% Sb to date, Nagambie considers that it has discovered one of the highest-grade antimony orebodies in the world, being aware of only one Russian Sb/Au mine¹ in the world with a higher grade.
- Mining Plus, a global mining services provider, has commenced modelling the Costerfield-Mine-style C-vein systems. Importantly, the grade distribution within the currently defined high-grade lodges shows that the mineralisation is not highly-nuggety / highly-variable and, as a result, drilling costs going forward will be significantly less than for Bendigo-Ballararat-style mineralisation.
- Mining Plus has designed the exploration decline from surface and exploration ore drives at 105m and 125m vertically below surface. The designs will form part of Nagambie's Work Plan Variation application to carry out the underground exploration work under its Mining Licence MIN5412.
- On 16 March 2023, Nagambie Resources announced a shareholder pro-rata 1 for 5 renounceable entitlement offer. On 21 April 2023, the Company announced that the offer had raised a total of \$2.3M before costs. Nagambie has issued 46.0M new shares (ASX: NAG) and 46.0M new listed options exercisable at \$0.10, with an expiry date of 26 April 2025 (ASX: NAGO), under the entitlement offer. The Company reserves the right to place the balance of the shortfall shares at 5.0 cents per share and attaching free options, being 61.1M shares and 61.1M options.

COMMENTARY

Nagambie Resources' Executive Chairman, Mike Trumbull, commented: *"The Sb/Au resource drilling program at the Nagambie Mine has been an outstanding success, discovering one of the highest-grade Sb orebodies in the world and the highest-grade Sb orebody of size ever in Victoria.*

"And we are just getting started. The quarterly reports for September 2022, December 2022 and now March 2023 have reported new mineable intersections respectively of 1, 8 and 12. With a second diamond drill rig expected to commence drilling in early May 2023, we are targeting being able to report many more mineable intersections in the June 2023 quarterly.

"Nagambie's CEO travelled to Oman during the quarter to inspect an Sb/Au refinery in that country. The executives at the refinery were particularly interested in Nagambie's high-grade orebody and targeted future as a major player in western world antimony production."

¹ As at 1 January 2019, the Sentachan (Zvezda) underground Sb/Au mine in north-eastern Russia had a JORC Probable Reserve that graded 10.5% Sb.

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Table 1 All 22 waste-diluted MCOG Intersections to date: EHT => 1.2m and AuEq => 3.0 g/t

Mineable Intersection (Potential Stope)	From (m)	To (m)	Downhole Length L (m)	BD of unmineralised waste: 2.74 BD of pure Stibnite: 4.56				EHT and BD Weighting				
				EHT (m)	Au Assay (g/t)	Sb Assay (Sb %)	AuEq (g/t)	BD based on Sb%	EHT & BD Weighted Au	EHT & BD Weighted Sb	EHT & BD Weighted AuEq	AuEq Times MCOG
NRP002 C1 E&W	109.00	136.10	27.10	2.50	4.84	7.51	19.18	2.89	5.42	9.15	22.90	7.6
NAD008 C1 E	178.20	180.00	1.80	1.20	3.51	3.05	9.34	2.79	3.55	3.26	9.77	3.3
NAD009 C1 E	172.34	174.20	1.86	1.20	0.08	2.36	4.59	2.78	0.08	2.52	4.89	1.6
NAD009 C1 W	200.00	207.30	7.30	4.70	4.86	4.20	12.88	2.81	5.32	4.74	14.37	4.8
NAD010 C1 E	160.00	161.78	1.78	1.20	13.38	16.14	44.21	3.05	13.56	18.44	48.79	16.3
NAD010 C1 W	163.56	165.35	1.79	1.20	0.19	2.81	5.56	2.79	0.21	3.05	6.03	2.0
NAD011 C1 E	214.30	217.80	3.50	1.20	0.10	1.47	2.91	2.77	0.10	1.61	3.18	1.1
NAD011 C1 W	270.7	276.00	5.30	2.25	1.46	10.38	21.29	2.94	1.52	12.01	24.45	8.2
NAD012 C1 W	130.86	132.20	1.34	1.20	1.67	1.66	4.84	2.77	1.75	1.83	5.24	1.7
NAD012 C2 E	401.40	404.80	3.40	2.62	6.72	2.54	11.57	2.78	6.68	2.57	11.59	3.9
NAD012 C2 M	416.00	420.00	4.00	1.98	6.27	3.78	13.50	2.80	6.30	3.89	13.72	4.6
NAD012 C2 W	423.00	428.00	5.00	2.42	8.70	5.49	19.19	2.84	9.30	6.17	21.08	7.0
NAD013 C1 E	167.30	171.10	3.80	2.70	3.61	10.02	22.74	2.93	4.32	11.75	26.77	8.9
NAD013 C1 W	238.00	240.30	2.30	1.40	7.13	0.05	7.23	2.74	7.13	0.05	7.23	2.4
NAD016 C1 W/HW	180.50	188.00	7.50	2.36	3.12	2.37	7.64	2.78	3.12	2.69	8.26	2.8
NAD016 C1 W/HW	174.50	177.00	2.50	1.27	9.37	1.67	12.55	2.77	9.32	1.69	12.56	4.2
NAD016 C1 W/HW	170.00	171.40	1.41	1.20	5.00	0.32	5.61	2.74	5.00	0.32	5.61	1.9
NAD017 C1 W	217.00	219.48	2.48	1.20	5.92	1.77	9.30	2.77	5.90	1.78	9.30	3.1
NAD020 C1 E-W Link	214.28	216.60	2.32	1.20	0.75	3.93	8.25	2.82	0.75	5.34	10.94	3.6
NAD022 C1 E	238.00	239.55	1.55	1.20	3.46	7.70	18.16	2.89	3.96	9.42	21.96	7.3
NAD023 C1 W	272.16	276.00	3.84	1.20	0.69	11.98	23.57	2.98	0.68	14.23	27.87	9.3
NAD029 C2 W	285.50	286.75	1.25	1.20	4.59	9.02	21.82	2.92	4.72	10.99	25.72	8.6
Average to Date				1.75				2.84	4.77	6.06	16.34	5.4

EHT = estimated horizontal thickness; AuEq (g/t) = Au (g/t) + (Sb% x 1.91); BD = bulk density

ANTIMONY-GOLD EXPLORATION

Costerfield-Mine-Style, Antimony-Gold Veins at 100%-owned Nagambie Mine

When reporting gold-antimony, vein-system exploration drilling results, a point of difference with Nagambie is that the Company doesn't only report all significant downhole sample assays. Nagambie simultaneously reports all MCOG intersections (or potential stopes) that meet its developed thresholds of being greater than or equal to 1.2m EHT and being equal to or greater than its mineable cut-off grade of 3.0 g/t AuEq. All relevant criteria are considered - including the weighting of sample assays for both downhole length and bulk density, the dip of the veins intersected, the mining method, and the AuEq factor. The aim of this detailed reporting method is to provide the most accurate, consistent and meaningful way of reporting the gold-antimony drilling results (**refer Appendix 1 for further information**).

Oriented diamond drill holes testing the C1 & C2 vein systems to date are shown in Figures 1 and 2 (plan and section views). All 22 MCOG intersections to date, reported to the ASX on 23 March 2023, are summarized in Table 1.

Trends to Date

The epizonal N-striking C1 & C2 vein systems are associated with the EW-striking Nagambie Mine Central Anticline and the various EW-striking thrust faults which dip to the north (due to the N to S compression event at the time of first mineralisation, circa 375 million years ago) and are known to continue regionally to kilometres in depth. With the C-veins generally dipping sub-vertically to the west and the E-W structures dipping sub-vertically to the north, the C-vein antimony-gold mineralisation is generally plunging to the north west.

Figure 1 Plan: Diamond drilling of the C1 & C2 antimony-gold vein systems

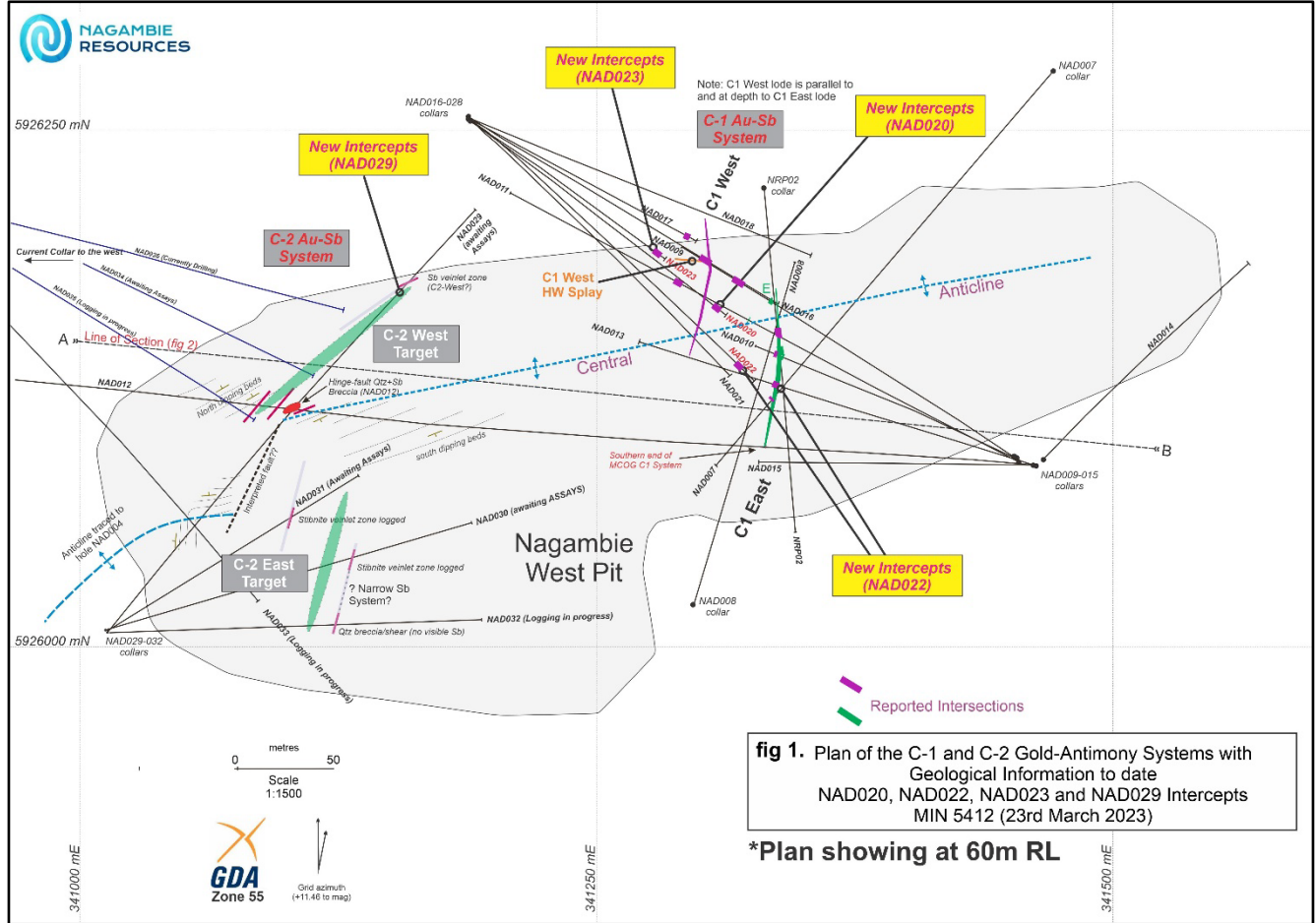


fig 1. Plan of the C-1 and C-2 Gold-Antimony Systems with Geological Information to date NAD020, NAD022, NAD023 and NAD029 Intercepts MIN 5412 (23rd March 2023)

*Plan showing at 60m RL

Figure 2 Long Section looking NNE: Diamond drilling of the C1 & C2 antimony-gold vein systems

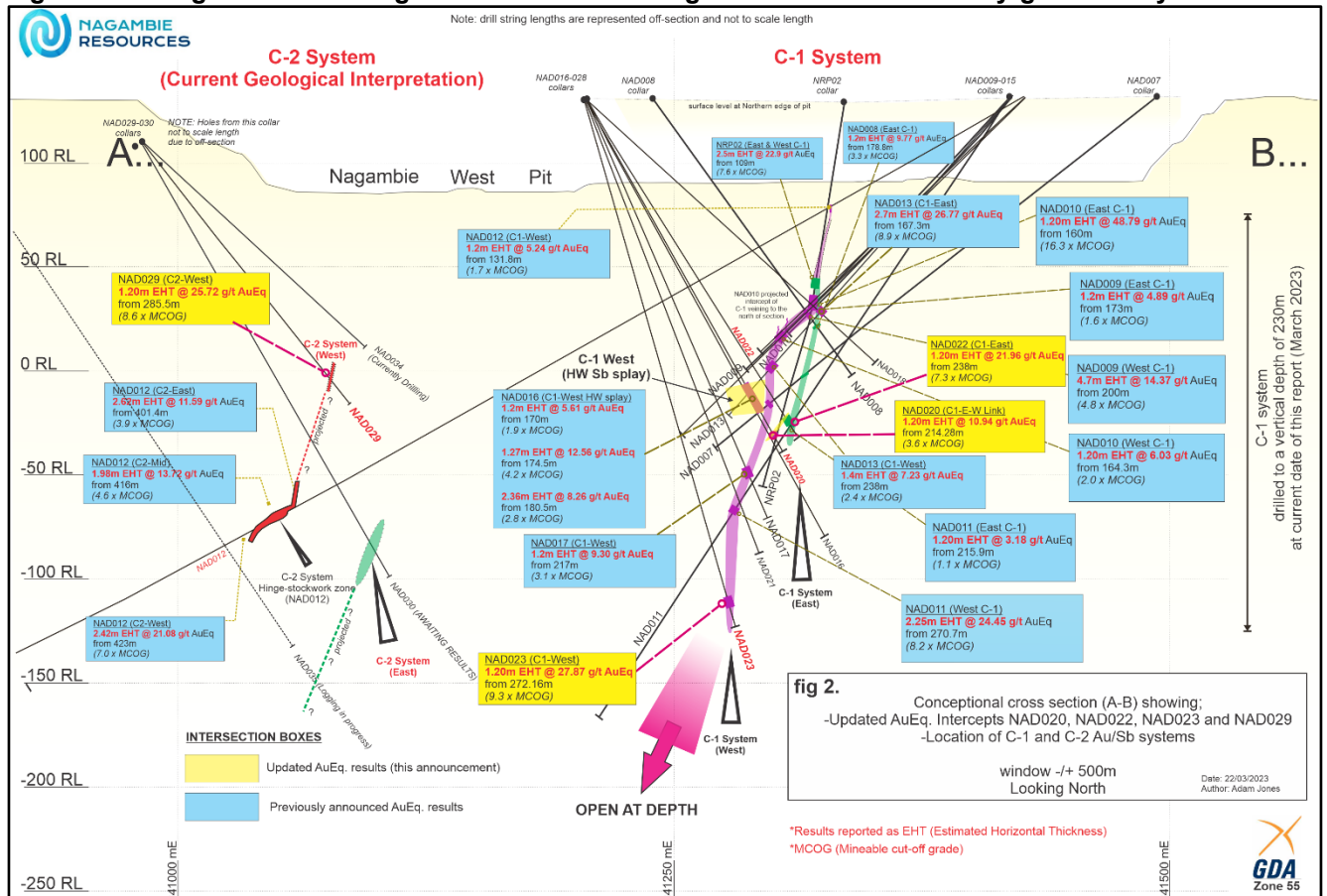


fig 2. Conceptual cross section (A-B) showing; -Updated AuEq. Intercepts NAD020, NAD022, NAD023 and NAD029 -Location of C-1 and C-2 Au/Sb systems

window +/- 500m Looking North

*Results reported as EHT (Estimated Horizontal Thickness)
*MCOG (Mineable cut-off grade)

Date: 22/03/2023
Author: Adam Jones

Mining Plus, a global mining services provider, with input from Nagambie’s principal geological consultant, has commenced modelling the N-striking antimony lodes (or vein systems) being discovered and progressively drilled out at the Nagambie Mine. Sufficient assay data has been received to date for Mining Plus to model the C1 E and C1 W lodes based on a 0.8% antimony (Sb) composite cut off (refer the long section views in Figures 3 and 4 respectively).

Figure 3 Mining Plus Antimony Model for the C1 E Lode – Long Section View looking East

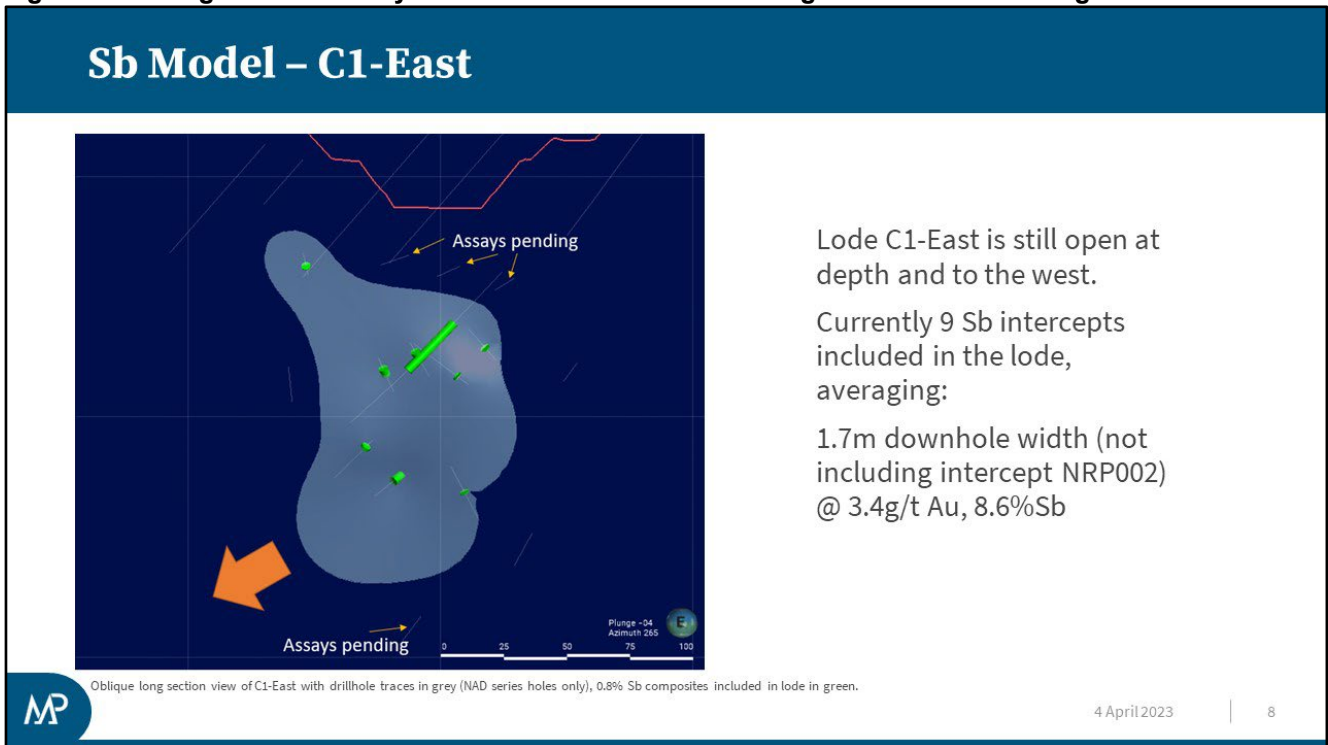
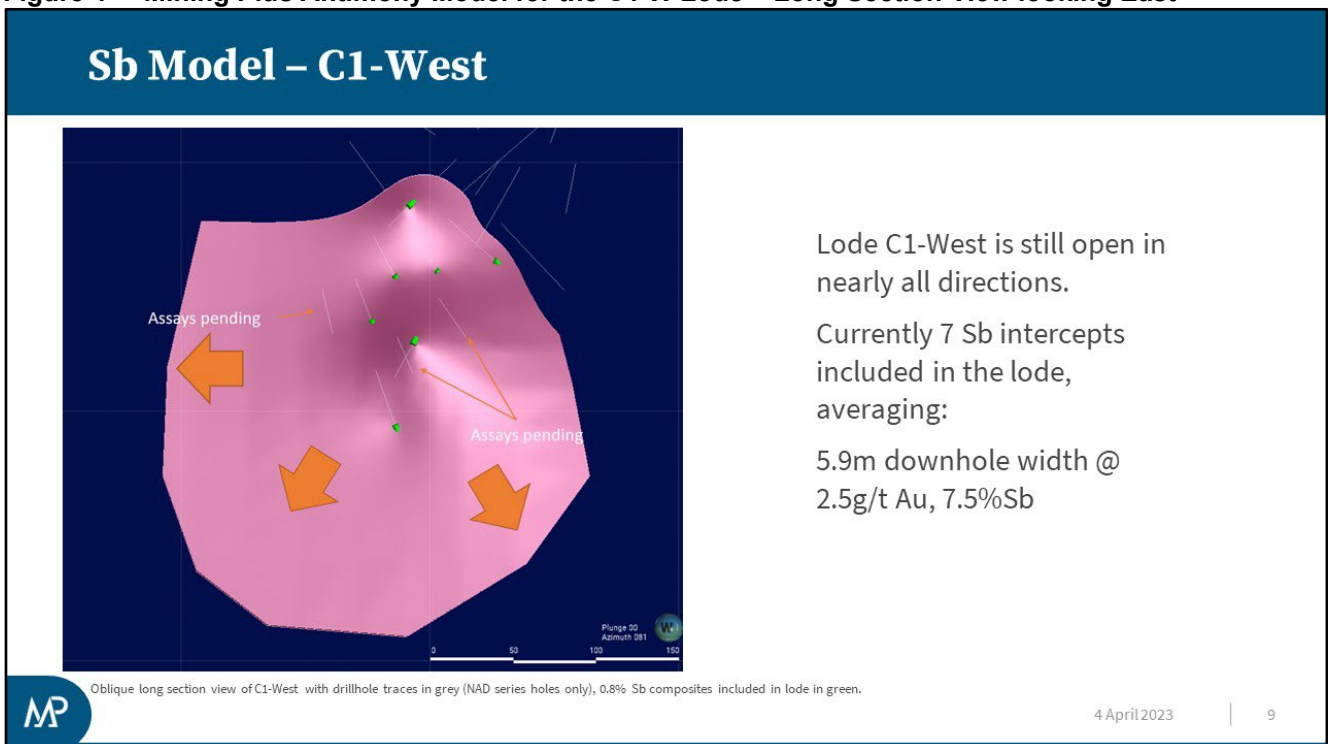


Figure 4 Mining Plus Antimony Model for the C1 W Lode – Long Section View looking East



The vertical extent of the C1 vein system is currently around 200m but could increase substantially with extensive further drilling – initially from surface and later from underground. The Fosterville Mine (refer Figure 5) epizonal mineralisation extends to more than 1,000m vertical depth and the Costerfield Mine (refer Figure 5) epizonal mineralisation is approaching 1,000m vertical depth.

Gold Tenements

The Company's tenements as at 31 March 2023, totalling 3,336.5 sq km, are listed in Table 2 and their general location in central Victoria is shown in Figure 5.

Figure 5 Nagambie's Tenements (in blue) all within the Melbourne Zone (in pink)

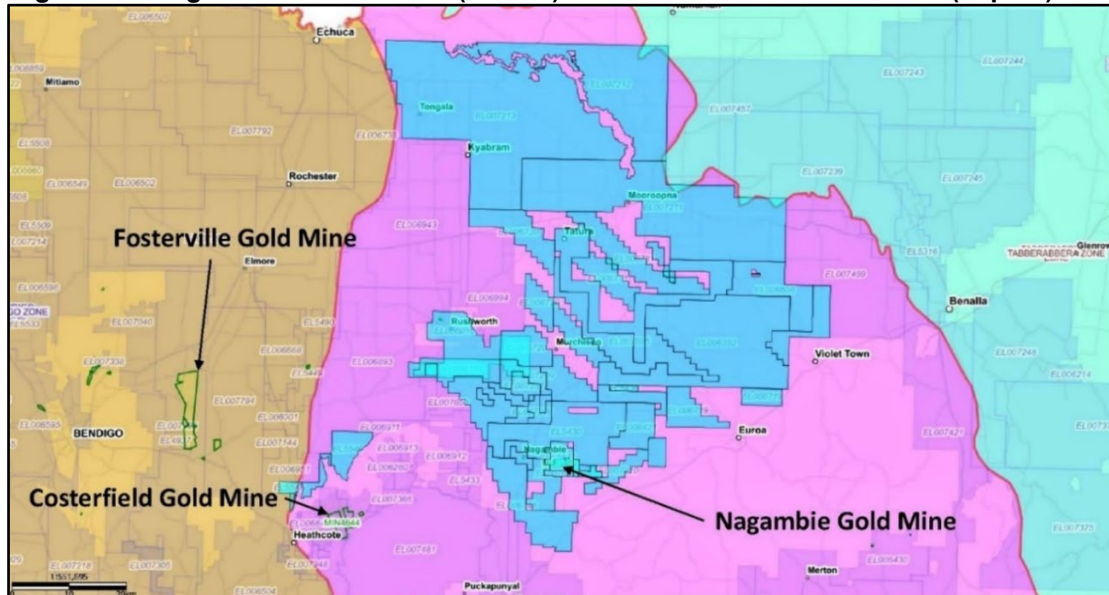


Table 2 Nagambie Resources Tenements as at 31 March 2023

Tenement Number	Tenement Name	sq km
MIN 5412	Nagambie Mining Licence	3.5
EL 5430	Bunganail Exploration Licence	160.0
EL 5511	Nagambie Central Exploration Licence	21.0
EL 6352	Miepoll Exploration Licence	342.0
EL 6508	Tabilk Exploration Licence	33.0
EL 6606	Gowangardie Exploration Licence	88.0
EL 6719	Euroa Exploration Licence	81.0
EL 6720	Tatura Exploration Licence	145.0
EL 6731	Arcadia Exploration Licence	218.0
EL 6748	Waranga Exploration Licence	102.0
EL 6937	Nagambie East Exploration Licence	2.0
EL 6877	Nagambie Exploration Licence	8.0
EL 7207	Arcadia Exploration Licence	156.0
EL 7208	Cullens Road Exploration Licence	29.0
EL 7210	Locksley Exploration Licence	26.0
EL 7211	Shepparton Exploration Licence	444.0
EL 7212	Shepparton North Exploration Licence	321.0
ELA 7213	Pederick Exploration Licence Application	683.0
EL 7264	Resource Recovery Exploration Licence	1.0
ELA 7265	Nagambie Town Exploration Licence Application	8.0
EL 7594	Miepoll East Exploration Licence	47.0
ELA 7595	Miepoll West Exploration Licence Application	113.0
ELA 7690	Nagambie South Exploration Licence Application	4.0
ELA 8082	Tabilk North Exploration licence Application	7.0
ELA 8083	Tabilk East Exploration Licence Application	40.0
Subtotal	Waranga Domain excluding Whroo JV Property	3,082.5
EL 6158	Rushworth Exploration Licence	46.0
EL 6212	Reedy Lake North Exploration Licence	17.0
EL 7205	Angustown Exploration Licence	49.0
EL 7209	Goulburn West Exploration Licence	34.0
EL 7237	Kirwans North (1) Exploration Licence	20.0
EL 7238	Kirwans North (2) Exploration Licence	9.0
RL 2019	Doctors Gully Retention Licence	4.0
Subtotal	Whroo JV Property with SXG	179.0
	Total Waranga Domain	3,261.5
EL 5546	Redcastle Exploration Licence	51.0
EL 7498	Comella Exploration Licence	19.0
EL 7499	Sheoak Exploration Licence	5.0
Subtotal	Redcastle JV Property with SXG	75.0
TOTAL	Nagambie Resources Limited Tenements	3,336.5

Underground Exploration Planning

Nagambie Resources has determined that it should explore from underground as soon as possible in order to:

- 1) develop strike drives on the C1 & C2 lodes, on at least two vertical levels, to prove the continuity of the vein systems; and
- 2) develop suitably-sited underground diamond drill cuddies to carry out close-patterned stope-definition drilling and deeper wider-spaced depth-extension drilling.

Mining Plus has designed the proposed underground exploration development. The designs, some of which are shown in Figures 6, 7, 8 and 9, will form part of Nagambie's Work Plan Variation application to carry out the underground exploration work, under its Mining Licence MIN5412, to Victoria's Earth Resources Regulation.

The decline box-cut (refer Figures 6 and 7) is to be excavated to the south of the East Pit, entirely in outcropping solid basement rocks (sandstones and siltstones). Likewise, the decline and underground development is to be excavated entirely in the basement rocks, well away from the surface water aquifer that commences to the west of the East Pit.

The proposed exploration ore drives for the C1 & C2 vein systems are approximately 105m (RL 25) and 125m (RL 5) vertically below the surface (RL 130) at the West Pit (refer Figures 6 and 7). The deepest part of the West Pit is around 50m below surface (80m RL). The surface aquifer commences around 8m below surface at the eastern end of the West Pit and deepens to the west, being around 25m below surface at the western end of the West Pit. Hence the proposed exploration drives are at least 55m and 75m below the floor of the West Pit and at least 80m and 100m below the surface aquifer in the West Pit.

Figure 6 Mining Plus Exploration Decline and initial Ore Drives for the C1 & C2 Vein Systems

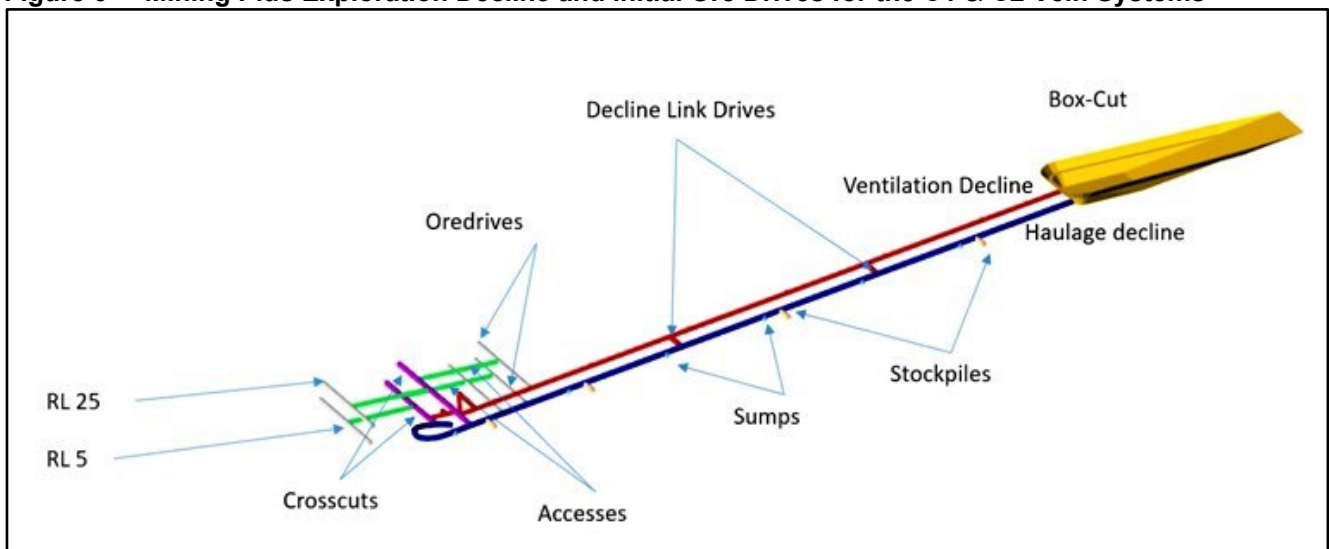
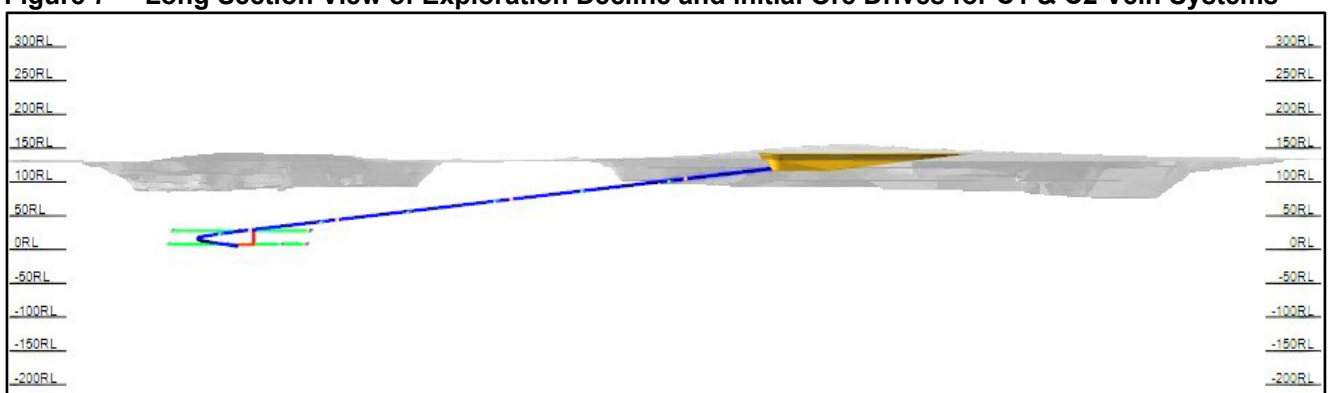


Figure 7 Long Section View of Exploration Decline and initial Ore Drives for C1 & C2 Vein Systems



In Figure 8, the ore drives, shown in grey, include the top exploration ore drives and additional mine ore drives below those – illustrating the dip to the west of the C1 & C2 vein systems.

Figure 8 Plan View of Exploration Decline and Ore Drives for the C1 & C2 Vein Systems

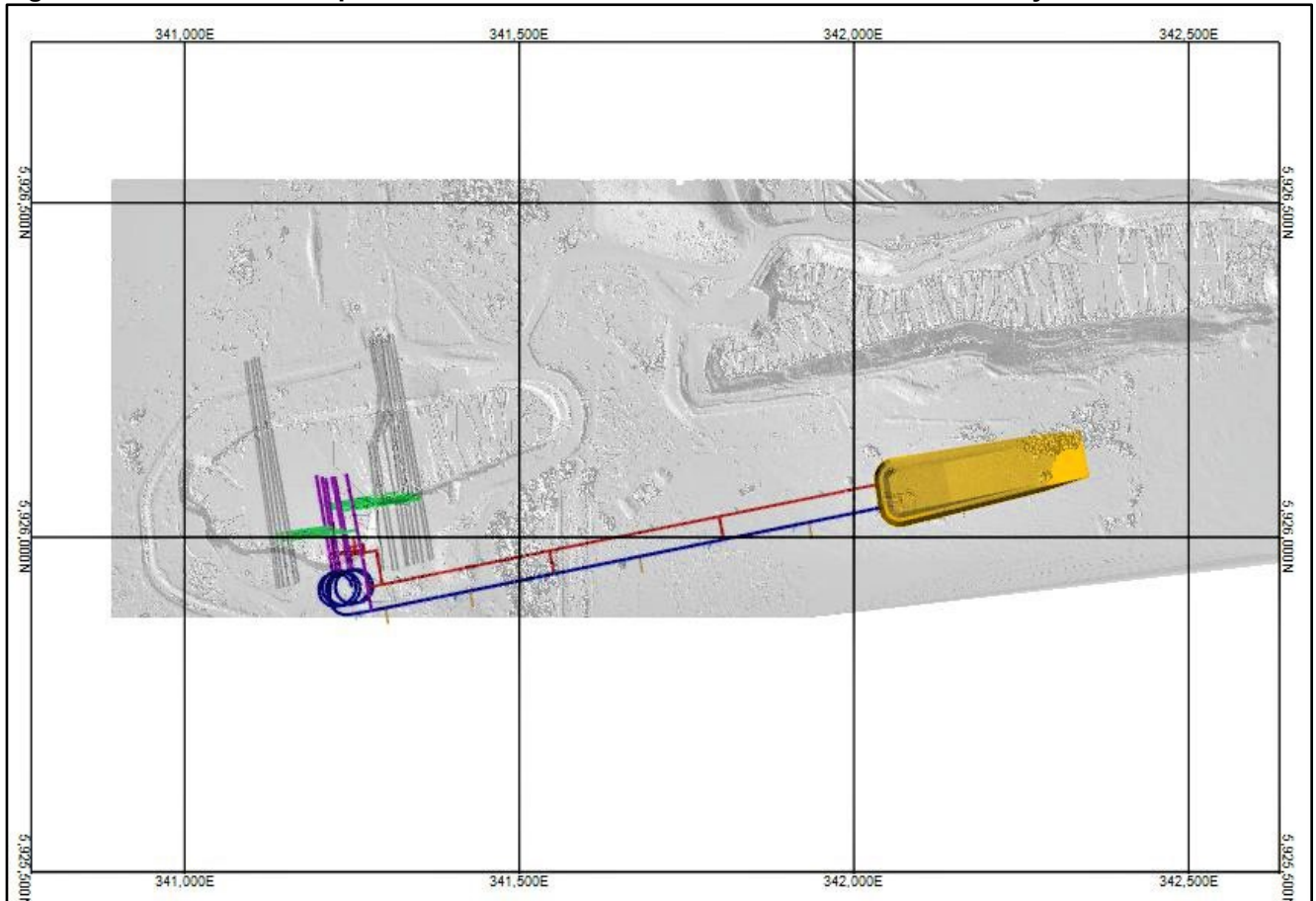
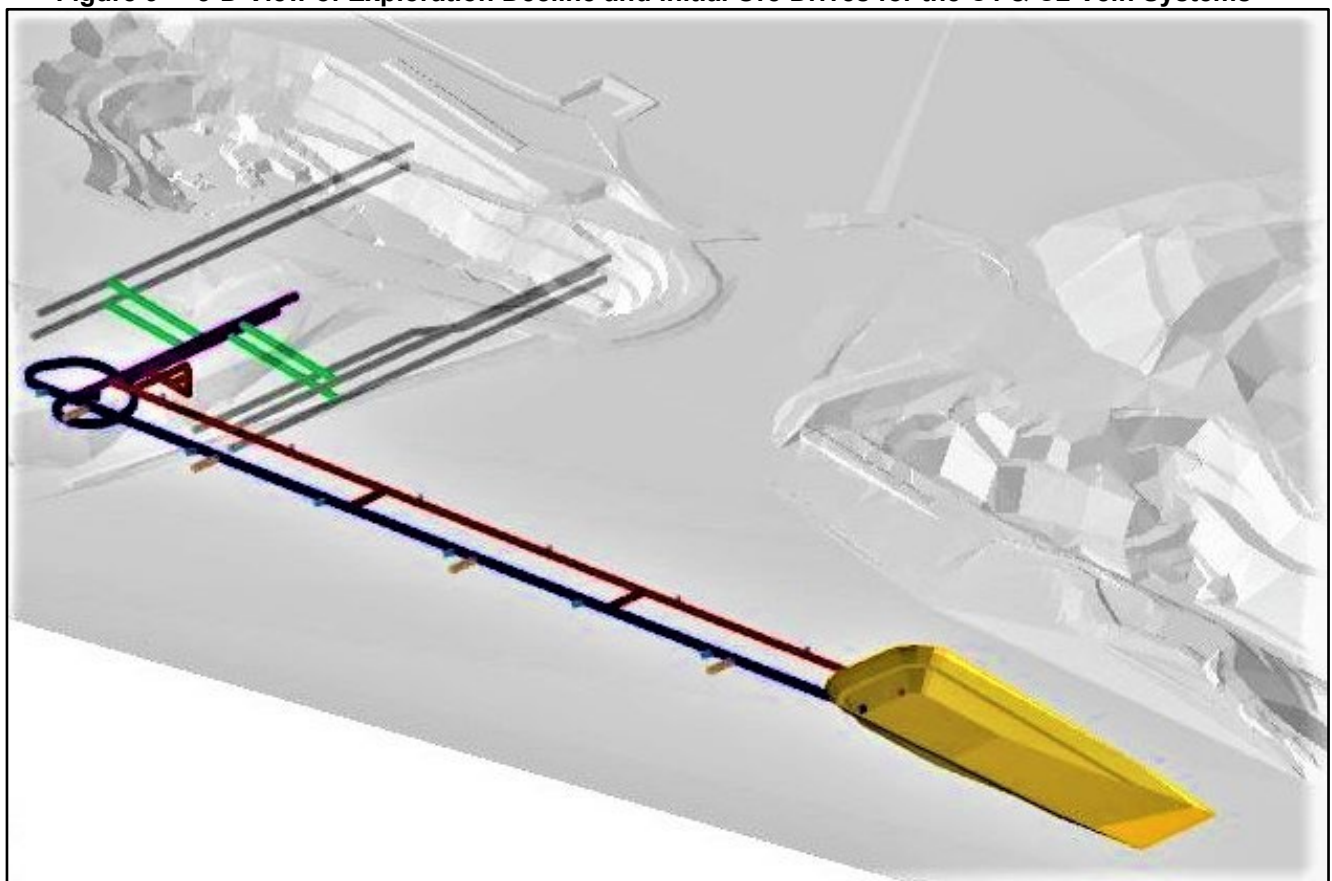


Figure 9 3-D View of Exploration Decline and initial Ore Drives for the C1 & C2 Vein Systems



NAGAMBIE GOLD TREATMENT PLANT

Nagambie Resources and Golden Camel Mining (GCM) are proceeding with the construction and operation of a 300,000 tonnes per annum toll treatment facility at the Nagambie Mine. GCM is the Manager and is paying 100% of all additional infrastructure, construction and commissioning costs. After commissioning, all revenues and operating costs will be shared 50:50. Initial feed for the plant is to be trucked from GCM's Golden Camel Mine.

GCM has been refurbishing key components of the plant and is still finalising financial arrangements with external parties.

POTENTIAL BACTERIAL RECOVERY OF GOLD IN 1990s HEAP LEACH PAD

Total recorded gold production from the Nagambie Mine cyanide heap between 1989 and 1997 was 134,000 ounces and Nagambie Resources considers that a significant amount of gold remains in the heap. Extracting this gold in a toll treatment plant or by additional cyanide heap leaching is currently not viable or economic.

Stage 1 of the Bioleaching Project was completed with the findings being that gold can be bioleached from the tailings using native and externally sourced bacteria when suitable conditions are provided. Further research was recommended to refine and improve the rate of gold bioleaching.

\$50,000 of funding assistance for Stage 2 of laboratory testwork, using larger samples from the Nagambie Mine and more bacteria options, has been approved under the Federal Government's Innovation Connections Program. The Perth-based laboratory, which is carrying out the work, has agreed to contribute an additional \$55,000 to the Stage 2 work given its positive assessment of the project. The Stage 2 work is progressing.

PASS (POTENTIAL ACID SULFATE SOIL) STORAGE

The Spark consortium has placed orders for two large tunnel-boring machines (TBMs) to excavate the road tunnels for the North East Link Project (NELP), commencing early in CY2024. Nagambie Resources is one of the bidders for the NELP PASS storage and is awaiting advice from the Spark consortium.

During the December 2022 quarter, bids were requested for PASS storage for the first stage of the Victorian Government's Suburban Rail Loop Project (SRLP). Nagambie submitted a bid for underwater storage of the PASS at the Nagambie Mine.

CORPORATE

Cash

At 31 March 2023, total cash held by the group was \$1,100,000.

1 for 5 Renounceable Entitlement Offer

On 16 March 2023, Nagambie Resources announced a shareholder pro-rata 1 for 5 renounceable entitlement offer. On 21 April 2023, the Company announced that the offer had raised a total of \$2.3M before costs. Nagambie has issued 46.0M new shares (ASX: NAG) and 46.0M new listed options exercisable at \$0.10, with an expiry date of 26 April 2025 (ASX: NAGO), under the entitlement offer. The Company reserves the right to place the balance of the shortfall shares at 5.0 cents per share and attaching free options, being 61.1M shares and 61.1M options.

Related Party Payments

In accordance with its obligations under ASX Listing Rule 5.3.5, Nagambie Resources advises that the only payments made to related parties of the Company in the quarter, as set out in item 6.1 of the accompanying Appendix 5B, were in respect of directors' and consulting fees.

By the order of the Board.



James Earle
Chief Executive Officer

STATEMENT AS TO COMPETENCY

The Exploration Results in this report have been compiled by Adam Jones who is a Member of the Australian Institute of Geoscientists (MAIG). Adam Jones has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". He consents to the inclusion in this report of these matters based on the information in the form and context in which it appears.

FORWARD-LOOKING STATEMENTS

This report contains "forward-looking statements" within the meaning of securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "target", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "outlook", "guidance" or other similar words, and include statements regarding certain plans, strategies and objectives of management and expected financial performance. These forward-looking statements involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Nagambie Resources and any of its officers, employees, agents or associates. Actual results, performance or achievements may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Exploration potential is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. Readers are cautioned not to place undue reliance on forward-looking statements and Nagambie Resources assumes no obligation to update such information.

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About Nagambie Resources:

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Oriented diamond drilling of structurally-controlled, high-grade antimony-gold underground targets within the Nagambie Mine Mining Licence and elsewhere in the 3,000 sq km of tenements in the Waranga Domain is being methodically carried out.

Nagambie Resources and Golden Camel Mining (GCM) have received approval for the construction and operation of a CIL gold toll treatment plant at the Nagambie Mine. GCM is paying 100% of all construction and commissioning costs; thereafter all revenues and costs will be shared 50:50. A future antimony flotation circuit is also planned.

Underwater storage of sulphidic excavation material (PASS) in the two legacy gold pits at the Nagambie Mine is an excellent environmental fit.

Bacterial recovery of residual gold from the 1990s heap leach pad is being investigated.

Mining and screening of sand and gravel deposits at the Nagambie Mine is also planned.

APPENDIX 1: Summary of Mining-Method Considerations and Developed Assay-Reporting Criteria

Mining Plus, a global mining services provider, reviewed the assay-reporting criteria developed by Nagambie Resources for the antimony-gold veins drilling program at the Nagambie Mine and agreed that the criteria were appropriate and meaningful in terms of reporting to the ASX. **The developed criteria draw heavily on the publicly-available information for the Costerfield Mine, 45 km to the west of the Nagambie Mine and currently Australia's only operating antimony-gold mine.**

- 1) The C-veins (Costerfield-Mine-style veins) at Nagambie's 100%-owned Nagambie Mine are generally striking N and dipping vertically or sub-vertically to the W or E. The Nagambie C-vein systems are geologically very similar to the antimony-gold vein systems at the Costerfield Mine, 100%-owned by Mandalay Resources Corporation, a Canadian company. The latest publicly-available comprehensive technical report for Costerfield ("Costerfield Report") is dated 25 March 2022:

https://mandalayresources.com/site/assets/files/3408/mnd_costerfield_ni-43_101_technical_report_2022.pdf

- 2) The Nagambie C-veins could be mineable from ~60m vertical depth from surface, the depth of the oxidised zone. An appropriate vertical geotechnical pillar under the West Pit will be determined in due course.
- 3) Like the Costerfield veins, the Nagambie veins to date are sub-vertical (45 degrees to 90 degrees (vertical)) and have good continuity both vertically and horizontally. As such, they are amenable to mechanised mining methods. Long-hole CRF stoping (where CRF stands for cemented rock fill) is the preferred mining method employed at the Costerfield Mine (p254, Costerfield Report). Another description of this method at Costerfield is Up-Hole-Retreat (UHR) stoping with the stope drill drives being 10m vertically apart and these drives being typically 3m high, so that the up-hole blast holes would be typically 7.0m in vertical height. Using cemented rock fill (utilising the underground development waste) would allow for future stopes above, below and besides each filled stope (also as for the Costerfield mine). For an example of a typical Costerfield stope drill drive, from which the up-hole blast holes are drilled, refer p75 of the Costerfield Report.
- 4) Conceptual mine planning for a Nagambie underground mine already indicates that, mining only the C1 & C2 vein systems, sufficient stopes could be developed to effectively schedule stoping operations and optimise the antimony and gold grades delivered to the treatment plant. Nagambie remains very confident of discovering additional C-vein systems to the south west of The West Pit.
- 5) Minimum stoping width could be 1.2m estimated horizontal thickness (EHT) (similar to the Costerfield Mine).
- 6) For stopes side by side, the waste between them should be at least 1.5m EHT to cover the additional costs for multiple stopes of strike driving, stoping, backfilling and potential ore mining losses.
- 7) All individual sample assays to be weighted by both EHT and sample bulk density (BD) – using the Costerfield Mine BD formula based on Sb% (see below).
- 8) Gold equivalent grade (g/t AuEq) to be calculated for each sample by multiplying the Sb% by the AuEq factor and adding that figure to the g/t Au. For the relevant formula, see below.
- 9) All intersection grades (Au, Sb, AuEq) to be reported for the EHT of the vein and, where the vein EHT is less than 1.2m, for the minimum mineable EHT of 1.2m by adding appropriate waste dilution (similar to the Costerfield Mine).
- 10) Mineable cut-off grade (MCOG) of 3.0 g/t AuEq over 1.2m EHT or greater (similar to the Costerfield Mine).

Bulk Density Calculation

BD is calculated for each intercept using the formula that the Costerfield Mine uses for the Augusta, Cuffley and Brunswick orebodies - refer page 191 of the 2022 Technical Report for the Costerfield Mine:

(www.mandalayresources.com/operations/overview/costerfield-mine/mnd_costerfield_ni-43_101_technical)

Formula:

$$BD = ((1.3951 * Sb\%) + (100 - (1.3951 * Sb\%))) / (((1.3951 * Sb\%) / 4.56) + ((100 - (1.3951 * Sb\%)) / 2.74))$$

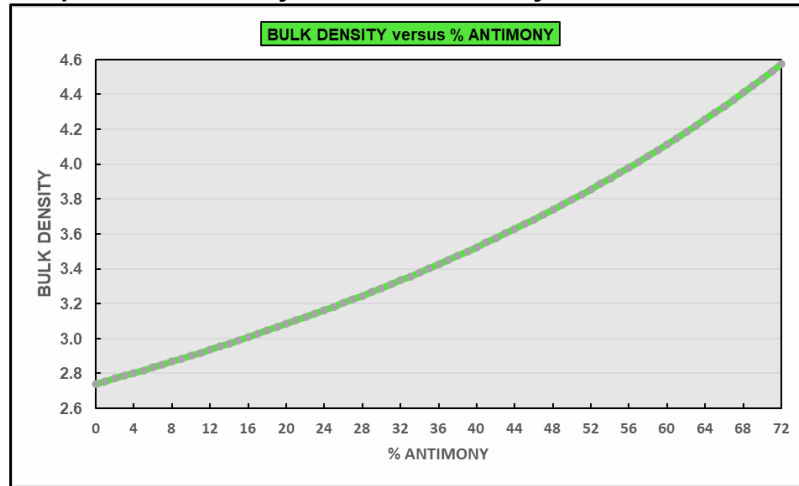
for which:

- Empirical formula of stibnite: Sb_2S_3
- Sb%: Antimony assay as a percentage by mass
- Molecular weight of Antimony (Sb): 121.757
- Molecular weight of Sulphur: (S): 32.066
- 1.3951 is a constant calculated by $339.712 / 243.514$ where 339.712 is the molar mass of Sb_2S_3 , and 243.514 is the molar mass of antimony contained in one mole of pure stibnite
- BD of pure stibnite: 4.56
- BD of unmineralised waste (predominantly sandstones, siltstones, mudstones): 2.74

In time, when a sufficiently representative range of material is available, Nagambie will need to calculate the BD of the unmineralised waste (predominantly sandstones, siltstones and mudstones) at the Nagambie Mine. However, Nagambie does not consider that it will vary significantly from 2.74.

A graphical representation of the Costerfield BD formula is shown in Graph 1. For 0% Sb, BD = 2.74 and for 71.7% Sb (the maximum possible in stibnite), BD = 4.56 (pure stibnite).

Graph 1: Bulk Density versus % Antimony



Nagambie considers that the above bulk density formula, while being appropriate, is a little conservative in that, for both the Costerfield Mine and the Nagambie Mine, the stibnite (Sb₂S₃) is known to contain variable amounts of the gold-antimony mineral, aurostibite (AuSb₂). While pure stibnite has a BD of 4.56, aurostibite has a BD of 9.98, reflective of its very high gold content – meaning that otherwise pure stibnite containing aurostibite will have a BD greater than 4.56.

Gold Equivalent Factor

Nagambie considers that both gold and antimony will be economically recoverable at the Nagambie Mine, as they are at the Costerfield Mine which is 45 km to the west of the Nagambie Mine.

The gold-antimony Costerfield Mine currently calculates its gold equivalent (AuEq) factor, the relative value of 1.0% antimony in the mine to 1.0 gram / tonne gold in the mine as:

$$\text{AuEq factor} = \frac{[\text{US\$/tonne antimony price} \times 0.01 \times 0.95 \text{ antimony recovery}]}{[\text{US\$/ounce gold price} / 31.10348 \text{ grams per ounce} \times 0.93 \text{ gold recovery}]}$$

The Costerfield Mine is 100% owned by Mandalay Resources Corporation and the projections for CY2023 on the [Mandalay website](#) adopt average CY2023 prices for gold and antimony of US\$1,797/ounce gold and US\$10,805/tonne antimony (refer Graph 2). For these prices, the AuEq factor using the above equation is **1.91**.

The average March 2023 quarter antimony price in US\$/tonne, Rotterdam Warehouse (Metal Bulletin) was US\$12,656 (refer Graph 2). This is above Mandalay’s average projection for the antimony price for CY2023 of US\$10,805 and could be a sign of increased stockpiling by certain western world governments and/or increased demand in China relating to the increasing use of antimony in solar panel glass to improve energy conversion.

Likewise, Mandalay’s average projection for the gold price for CY2023 of US\$1,797 could prove to be conservative given that the gold price is currently +/- US\$2,000.

Graph 2: Average Quarterly Antimony Price (US\$/Tonne)

